

WE CLAIM:

1. An *in vitro* method for producing dendritic cells from pluripotential cells, comprising contacting the pluripotential cells with a factor for a time sufficient for the pluripotential cells to mature and express characteristics of dendritic cells.
- 5 2. The method of claim 1, wherein the pluripotential cells are CD14 positive mononuclear pluripotential cells.
3. The method of claim 1, wherein the pluripotential cells are peripheral blood mononuclear cells.
4. The method of claim 1, wherein the pluripotential cells are monocytes.
- 10 5. The method of claim 1, wherein the factor comprises GM-CSF.
6. The method of claim 5, wherein the factor further comprises a cytokine selected from the group consisting of IL-4; IL-13; IL-4 and IL-1 β ; IL-13 and IL-1 β ; IL-4 and TNF- α ; IL-13 and TNF- α ; IL-4, IL-1 β , and TNF- α ; IL-13, IL-1 β , and TNF- α ; IL-4 and IL-12; IL-13 and IL-12; IL-4 and stem cell factor, IL-13 and stem cell factor; IL-4 and IL-15; and IL-13 and IL-15.
- 15 5. The method of claim 5, wherein the GM-CSF is present at a concentration of between about 200 U/ml to about 2000 U/ml.
7. The method of claim 1, wherein the dendritic cells express high levels of MHC class molecules.
- 20 8. The method of claim 1, wherein the dendritic cells have the capacity to stimulating resting T cells.